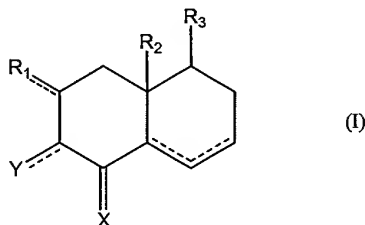


AMENDMENTS TO THE CLAIMS

1.-25. (Canceled)

26. (Original) A method for controlling pests, said method comprising exposing said pests to a pest-controlling effective amount of a compound of formula (I) or a tautomer thereof or a composition comprising at least one compound of formula (I) or a tautomer thereof:



wherein:

X is selected from O, S or N-R₄;

when ----- is a single bond attached to Y, Y is selected from the group consisting of H, [C(R₇)₂]_nhalo, [C(R₇)₂]_nOR₅, [C(R₇)₂]_nSR₅, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

when ----- is a double bond attached to Y, Y is O;

when ----- is a single bond attached to R₁, R₁ is selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

when ----- is a double bond attached to R₁, R₁ is CR_{1a}R_{1b} wherein R_{1a} and R_{1b} are independently selected from C₁-C₁₀alkyl;

R₂ and R₃ are independently selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀

alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

each R₄ is independently selected from the group consisting of H, OH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclalkyl, C₅-C₁₃ heterocyclalkenyl, C₁-C₁₀ alkoxy and C₂-C₁₀ alkenyloxy;

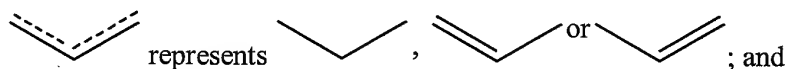
R₅ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclalkyl, C₅-C₁₃ heterocyclalkenyl, (C=O)R₆, PO₃R₈, SO₃R₈ and SO₂R₈;

R₆ is selected from the group consisting of H, OH, C₁-C₁₀ alkoxy, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyloxy, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₆-C₁₀ aryloxy, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₃-C₆ cycloalkyloxy, C₃-C₆ cycloalkenyloxy, C₃-C₁₀ heterocyclyl, C₃-C₁₀ heterocyclloxy, C₁-C₁₀ alkylthio, C₁-C₁₀ alkenylthio, C₆-C₁₀ arylthio, C₃-C₆ cycloalkylthio, and C₃-C₁₀ heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclalkenyl, and NO₂;

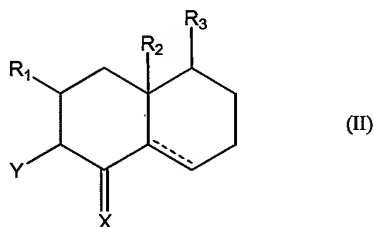
R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclalkyl and C₅-C₁₃ heterocyclalkenyl;

n is 0 or an integer selected from 1 to 5;



wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

27. (Currently amended) A method according to claim 263 wherein the compound of formula (I) is a compound of formula (II):



wherein:

X is selected from the group consisting of O, S or N- R_4 ;

Y is selected from the group consisting of H, $[C(R_7)_2]_n$ halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

R_1 , R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_2 - C_{10} alkynyl, C_6 - C_{10} aryl, C_7 - C_{12} arylalkyl, C_8 - C_{13} arylalkenyl, C_3 - C_6 cycloalkyl, C_3 - C_6 cycloalkenyl, C_4 - C_{10} cycloalkylalkyl, C_4 - C_{10} cycloalkenylalkyl, C_3 - C_{10} heterocyclyl, C_4 - C_{12} heterocyclylalkyl, C_5 - C_{13} heterocyclylalkenyl, C_1 - C_{10} alkoxy, C_2 - C_{10} alkenyloxy, C_1 - C_{10} alkylthio, C_2 - C_{10} alkenylthio, $[C(R_7)_2]_n$ halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_6 - C_{10} aryl, C_7 - C_{12} arylalkyl, C_8 - C_{13} arylalkenyl, C_3 - C_6 cycloalkyl, C_3 - C_6 cycloalkenyl, C_4 - C_{10} cycloalkylalkyl, C_3 - C_{10} heterocyclyl, C_4 - C_{12} heterocyclylalkyl, C_5 - C_{13} heterocyclylalkenyl, C_1 - C_{10} alkoxy and C_2 - C_{10} alkenyloxy;

R_5 is selected from the group consisting of H, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_6 - C_{10} aryl, C_7 - C_{12} arylalkyl, C_8 - C_{13} arylalkenyl, C_3 - C_6 cycloalkyl, C_3 - C_6 cycloalkenyl, C_4 - C_{10} cycloalkylalkyl, C_3 - C_{10} heterocyclyl, C_4 - C_{12} heterocyclylalkyl, C_5 - C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8 , SO_3R_8 and SO_2R_8 ;

R_6 is selected from the group consisting of H, OH, C_1 - C_{10} alkoxy, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyloxy, C_2 - C_{10} alkenyl, C_6 - C_{10} aryl, C_6 - C_{10} aryloxy, C_3 - C_6 cycloalkyl, C_3 - C_6 cycloalkenyl, C_3 - C_6 cycloalkyloxy, C_3 - C_6 cycloalkenyloxy, C_3 - C_{10} heterocyclyl, C_3 - C_{10} heterocycliloxy, C_1 - C_{10} alkylthio, C_1 - C_{10} alkenylthio, C_6 - C_{10} arylthio, C_3 - C_6 cycloalkylthio, and C_3 - C_{10}

heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclalkenyl, and NO₂;

R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclalkyl and C₅-C₁₃ heterocyclalkenyl;

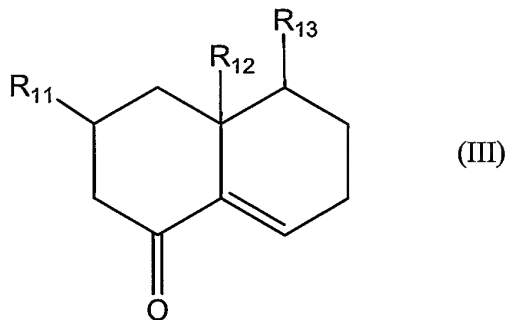
n is 0 or an integer selected from 1 to 5;

----- represents a single or double bond; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

28. (Canceled)

29. (Currently amended) A method according to claim 263, wherein at least one compound of formula (I) is a compound of formula (III):



wherein

R₁₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

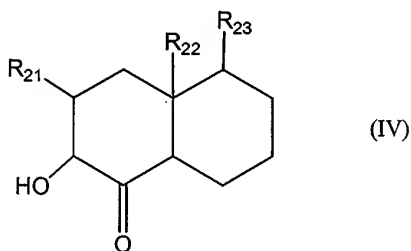
R₁₂ and R₁₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

30. **(Currently amended)** A method according to claim 295, wherein R₁₁ is C₂-C₁₀ alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R₁₂ and R₁₃ are independently selected from C₁-C₁₀ alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

31. **(Currently amended)** A method according to claim 263 wherein at least one compound of formula (I) is eremophilone.

32. **(Canceled)**

33. **(Currently amended- Withdrawn)** A method according to claim 263 wherein at least one compound of formula (I) is a compound of formula (IV):



wherein R₂₁, R₂₂ and R₂₃ are independently selected from the group consisting of H, OH, SH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₄-C₁₀ cycloalkenylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy, C₂-C₁₀ alkenyloxy, C₁-C₁₀ alkylthio, C₂-C₁₀ alkenylthio, [C(R₇)₂]_nhalo, [C(R₇)₂]_n(C=O)R₆, [C(R₇)₂]_n(C=S)R₆, [C(R₇)₂]_nN(R₄)₂, [C(R₇)₂]_n(C=NR₄)R₆, [C(R₇)₂]_nNO₂ and [C(R₇)₂]_nNR₄OR₈;

each R₄ is independently selected from the group consisting of H, OH, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl, C₅-C₁₃ heterocyclylalkenyl, C₁-C₁₀ alkoxy and C₂-C₁₀ alkenyloxy;

R₆ is selected from the group consisting of H, OH, C₁-C₁₀ alkoxy, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyloxy, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₆-C₁₀ aryloxy, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl,

C₃-C₆ cycloalkyloxy, C₃-C₆ cycloalkenyloxy, C₃-C₁₀ heterocyclyl, C₃-C₁₀ heterocyclyloxy, C₁-C₁₀ alkylthio, C₁-C₁₀ alkenylthio, C₆-C₁₀ arylthio, C₃-C₆ cycloalkylthio, and C₃-C₁₀ heterocyclylthio;

R₇ is selected from the group consisting of H, halogen, OR₅, SR₅, N(R₄)₂, (C=O)R₆, (C=S)R₆, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₃-C₁₀ heterocyclyl, C₃-C₆ cycloalkyl, C₇-C₁₂ arylalkyl, C₄-C₁₂ heterocyclylalkyl, C₄-C₁₀ cycloalkylalkyl, C₈-C₁₃ arylalkenyl, C₅-C₁₃ heterocyclylalkenyl, and NO₂;

R₈ is selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₈-C₁₃ arylalkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkenyl, C₄-C₁₀ cycloalkylalkyl, C₅-C₁₀ cycloalkylalkenyl, C₃-C₁₀ heterocyclyl, C₄-C₁₂ heterocyclylalkyl and C₅-C₁₃ heterocyclylalkenyl; and

n is 0 or an integer selected from 1 to 5;

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

34. **(Currently amended- Withdrawn)** A method according to claim ~~33~~8 wherein R₂₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

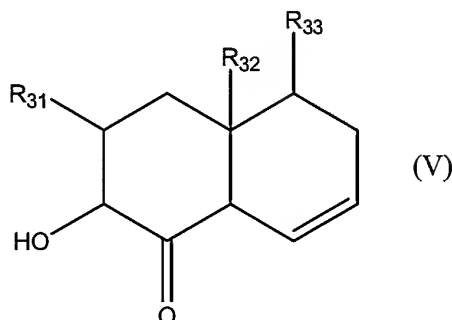
R₂₂ and R₂₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

35. **(Currently amended- Withdrawn)** A method according to claim ~~34~~9 wherein R₂₁ is C₂-C₁₀ alkenyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups, and R₂₂ and R₂₃ are independently selected from C₁-C₁₀ alkyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups.

36. **(Currently amended- Withdrawn)** A method according to claim ~~26~~3 wherein at least one compound of formula (I) is 8-hydroxy-1(10)dihydroeremophilone.

37. **(Canceled)**

38. (**Currently amended- Withdrawn**) A method according to claim 263 comprising at least one compound of formula (V):



wherein R₃₁ is selected from the group consisting of C₂-C₁₀ alkenyl, C₇-C₁₂ arylalkyl, C₆-C₁₂ heteroarylalkyl and C₂-C₁₀ alkenyloxy wherein each C₂-C₁₀ alkenyl or C₂-C₁₀ alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

R₃₂ and R₃₃ are independently selected from the group consisting of H, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₆-C₁₀ aryl, C₇-C₁₂ arylalkyl, C₃-C₁₀ cycloalkyl, C₅-C₁₀ heteroaryl, C₆-C₁₂ heteroarylalkyl and C₁-C₁₀ alkoxy, wherein each C₁-C₁₀ alkyl and C₁-C₁₀ alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

39. (**Currently amended- Withdrawn**) A method according to claim 3842 wherein R₃₁ is C₂-C₁₀ alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R₃₂ and R₃₃ are independently selected from C₁-C₁₀ alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

40. (**Currently amended- Withdrawn**) A method according to claim 263 wherein at least one compound of formula (I) is 8-hydroxyeremophila-1,11-dienone.

41. (**Currently amended**) A method according to claim 263 wherein the composition comprises an extract containing at least one compound of formula (I) obtained from a volatile oil bearing plant from the Myoporaceae family.

42. (**Canceled**)

43. (**Canceled**)

44. (**Currently amended**) A method according to claim 263 wherein the pest-controlling effective amount is a pesticidally effective amount.

45. (**Currently amended**) A method according to claim 263 wherein the pest-controlling effective amount is a pest-repelling effective amount.

46. (Currently amended) A method according to claim 263 wherein the pest-controlling effective amount is a antifeedant effective amount.

47. (Currently amended) A method according to claim 263 wherein the pests are selected from the group consisting of insects, arachnids, helminths and molluscs.

48. (Currently amended) A method according to claim 263 wherein the pests are selected from the group consisting of termites, earwigs, cockroaches and wood borer beetles and their larvae.

49. (Currently amended) A method according to claim 263 wherein the pests are wood associated pests.

50. (Currently amended) A method according to claim 4924 wherein the wood associated pests are selected from the group consisting of termites and wood borer beetles.

51. (Currently amended) A method according to claim 5022 wherein the wood associated pests are termites.

52. (Currently amended) A method according to claim 263 wherein pests are exposed to the pest-controlling effective amount of a compound of formula (I) or a composition comprising at least one compound of formula (I) by applying the compound or composition to a site of infestation, a potential site of infestation, a habitat of the pest or a potential habitat of the pest.

53. (Currently amended) A method according to claim 5224 wherein the compound or composition is applied to a surface or impregnated into a material or article of manufacture.

54. (Currently amended) A method according to claim 5325 wherein the compound or composition is applied to a surface by spraying, coating or painting the surface.

55. (Currently amended) A method according to claim 5426 wherein the surface is a soil surface, timber, buildings, wooden articles of manufacture or a physical barrier.

56. (Currently amended) A method according to claim 5527 wherein the material or article of manufacture is soil, timber, timber or wooden products or buildings or parts of buildings.

57. (Currently amended) A method according to claim 5224 wherein the compound or composition is applied in a band or furrow around a site of infestation or potential infestation or is mixed with a layer of soil at a site of infestation or a potential site of infestation.

58.-78. (Canceled)

79. (Currently amended) A method of combating an already existing wood associated pest infestation comprising applying at least one compound of formula (I) or a tautomer thereof or a composition comprising at least one compound of formula (I) or a tautomer thereof ~~a composition according to claim 1~~ to a wood associated pest affected surface, wherein the compound of formula (I) is as defined in Claim 26.

80.-82. (Canceled)